1637

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
(Our Case No. 01-661-A)

In re Application of:		)	
	Mirkin, et al.	)	Examiner: T. Strzelecka
Serial No.	10/034,451	)	Group Art Unit: 1637
Filed:	December 28, 2001	)	Confirmation No.: 9317
For:	Non-Alloying Core Shell Nanoparticles	)	

TRANSMITTAL LETTER

Mail Stop: Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In regard to the above identified application.

1. We are transmitting herewith the attached:
   a) Thirteenth Supplemental Information Disclosure Statement;
   b) U.S. PTO 1449 Form with copies of references 1-55; and
   c) Return Postcard.

2. With respect to fees:
   a) No fee is due.
   b) General Authorization: Please charge any underpayment or credit any overpayment our Deposit Account No. 13-2490.

3. CERTIFICATE OF MAILING UNDER 37 CFR § 1.8: The undersigned hereby certifies that this Transmittal Letter and the paper, as described in paragraph 1 hereinabove, are being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 8 day of August, 2005.

Respectfully submitted,

Date: Aug. 8, 2005

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THIRTEENTH SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Sir:

In order to comply with discretionary regulations 37 CFR §§1.97 and 1.98, attached hereto is Form PTO-1449, copies[1] of the documents listed thereon. These documents contain information which the Examiner may consider to be important in deciding whether to allow the present application to issue as a patent.

1.	Carla M. Aguirre, Cristin E. Moran, James F. Young, and Naomi J. Halas, "Laser-Induced Reshaping of Metallodielectric Nanoshells under Femtosecond and Nanosecond Plasmon Resonant Illumination", *J. Phys. Chem. B,* Vol. 108, 7040-7045 (2004).
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4.	R. D. Averitt, S. L. Westcott, and N. J. Halas, "Linear optical properties of gold nanoshells", *J. Opt. Soc. Am. B.*, Vol. 16, No. 10, 1824-1832 (1999).

[1]To the extent that a document is listed and no copy of same is attached, then such document is not at the present time available to the undersigned or is available in the file of a parent application. If a listed document is not in the English language and an English translation is readily available, such translation is also attached; if translation is not attached it is not readily available to the undersigned. If a foreign language patent document is cited, and an English language equivalent is known to the undersigned, then such equivalent patent is also cited on the attached form along with the corresponding foreign language patent and a connecting arrow indicated therebetween; if no such English language equivalent is cited, then none is known to undersigned.

5.	R. D. Averitt, S. L. Westcott and N. J. Halas, "Ultrafast Electron Dynamics in Gold Nanoshells", *Phys. Rev. B,* Vol. 58, R10203-R10206 (1998).
6.	C. Charnay, A. Lee, S. Man, C. E. Moran, C. Radloff, R. K. Bradley, and N. J. Halas, "Reduced Symmetry Metallodielectric Nanoparticles: Chemical Synthesis and Plasmonic Properties", *J. Phys. Chem. B,* Vol. 107, 7327-7333 (2003)
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32.	S. Oldenburg, R. D. Averitt, S. Westcott, and N. J. Halas, "Nanoengineering of Optical Resonances", *Chem. Phys. Lett.*, Vol. 288, 243-247 (1998).
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41.	S. R. Sershen, S. L. Westcott, N. J. Halas, and J. L. West, "Temperature-Sensitive Polymer-Nanoshell Composites for Photothermally Modulated Drug Delivery", *J. Biomedical Materials Research*, Vol. 51, 293-298 (2000).
42.	S. R. Sershen, S. L. Westcott, N. J. Halas, J. L. West, "Independent optically addressable nanoparticle-polymer optomechanical composites", *Appl. Phys. Lett.*, Vol. 80, No. 24, 4609-4611 (2002).
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45.	D. D. Smith, L. Sibille, R. J. Cronise, A. J. Hunt, S. J. Oldenburg, D. Wolfe, and N. J. Halas, "Effect of Microgravity on the Growth of Silica Nanostructures", *Langmuir*, Vol. 16, 10055-10060 (2000).
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47.	F. Tam and N. J. Halas, "Plasmon Response of Nanoshell Dopants in Organic Films: A Simulation Study", *Progress in Organic Coatings*, Vol. 47, 275-278 (2003).
48.	West, Jennifer L., Halas, Noami J., "ENGINEERED NANOMATERIALS FOR BIOPHOTONICS APPLICATIONS: Improving Sensing, Imaging, and Therapeutics", *Annual Review of Biomedical Engineering*, Vol. 5, 285-292 (2003).

49.	J. L. West and N. J. Halas, "Applications of Nanotechnology to Biotechnology - Commentary", *Current Opinion in Biotechnology*, Vol. 11, 215-217 (2000).
50.	S. L. Westcott, J. B. Jackson, C. Radloff, and N. J. Halas, "Relative Contributions to the Plasmon Line Shape of Metal Nanoshells", *Phys. Rev. B*, Vol. 66, 155431-1 – 155431-5 (2002).
51.	S. L. Westcott and N. J. Halas, "Electron Relaxation Dynamics in Semicontinuous Metal Films on Nanoparticle Surfaces", *Chem. Phys. Lett.*, Vol. 356, 207-213 (2002).
52.	S. L. Westcott, R. D. Averitt, J. A. Wolfgang, P. Nordlander, and N. J. Halas, "Adsorbate-Induced Quenching of Hot Electrons in Gold Core-Shell Nanoparticles", *J. Phys. Chem. B*, Vol. 105, No. 41, 9913-9917 (2001).
53.	S. L. Westcott, S. J. Oldenburg, T. R. Lee and N. J. Halas, "Construction of Simple Gold Nanoparticle Aggregates with Controlled Plasmon-Plasmon Interactions," *Chem. Phys. Lett.*, Vol. 300, 651-655 (1999).
54.	S. Westcott, S. Oldenburg, T. R. Lee, and N. J. Halas, "Formation and Adsorption of Clusters of Gold Nanoparticles onto Functionalized Silica Nanoparticle Surfaces", *Langmuir*, Vol. 14, 5396-5401 (1998).
55.	D. B. Wolfe, S. J. Oldenburg, S. L. Westcott, J. B. Jackson, M. S. Paley, and N. J. Halas, "Preparation and characterization of polymer-coated nanoparticles," *SPIE Proceedings*, Vol. 3793, 129-137 (1999).
56.	C. Radloff, C.E. Moran, J.B. Jackson and N.J. Halas, "Nanoparticles: Building Blocks for Functional Nanostructures" in *Molecular Nanoelectronics*, Mark Reed and Takhee Lee, eds., American Scientific Publishers (2003).

In accordance with MPEP Sections 609 and 707.05(b), it is requested that each document cited (including any cited in applicant's specification which is not repeated on the attached Form PTO-1449) be given thorough consideration and that it be cited of record in the prosecution history of the present application by initialing on Form PTO-1449. Such initialing is requested even if the Examiner does not consider a cited document to be sufficiently pertinent to use in a rejection, or otherwise does not consider it to be prior art for any reason, or even if the Examiner does not believe that the guidelines for citation have been fully complied with. This is requested so that each document becomes listed on the face of the patent issuing on the present application.

The present Disclosure Statement is being submitted in compliance with 37 CFR 1.56 insofar as an Examiner might consider any of the cited documents important in deciding whether to allow the application to issue as a patent, but the citation of each document is not to be construed as an admission that such document is necessarily relevant or prior art. No representation is intended that the cited documents represent the

results of a complete search, and it is anticipated that the Examiner, in the normal course of examination, will make an independent search and will determine the best prior art consistent with 37 CFR 1.104(a) and 1.106(b) and, in the course of each search, will review for relevance every document cited on the attached form even if not initialed.

Early and favorable consideration is earnestly solicited.

Respectfully submitted,

Dated: Aug. 8, 2005

Emily Miao
Registration No. 35,285

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Form PTO-1449 U.S. Department of Commerce Patent and Trademark Office **INFORMATION DISCLOSURE STATEMENT BY APPLICANT**	Atty. Docket No. 01-661-A	Serial No. 10/034,451
	Applicant: Mirkin, et al.	
	Filing Date: December 28, 2001	Group: 1637

U.S. PATENT DOCUMENTS

Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date

FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Subclass	Translation Yes No

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc).

	1.	Carla M. Aguirre, Cristin E. Moran, James F. Young, and Naomi J. Halas, "Laser-Induced Reshaping of Metallodielectric Nanoshells under Femtosecond and Nanosecond Plasmon Resonant Illumination", *J. Phys. Chem. B*, Vol. 108, 7040-7045 (2004).
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	Applicant: Mirkin, et al.	
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	16.	J. B. Jackson, S. L. Westcott, L. R. Hirsch, J. L. West, and N. J. Halas, "Controlling the surface enhanced Raman effect via the nanoshell geometry", *Appl. Phys. Lett.*, Vol. 82, No. 2, 257-259 (2003).
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